Claim No.	Support in English Specification
12	Original claim 11. (Page 19, lines 15-18).
13	Page 1, line 3 to Page 2, line 11; Page 4, lines 1-31, Page 12, line 11 to Page 17, line 11.
14	Original claim 4; Page 4, lies 22-31.
15	Original claim 5; Page 4, line 12-19; and Page 12, line 11 to Page 17, line 11
16	Original claim 6; Page 4, line 12-19; and Page 12, line 11 to Page 17, line 11
17	Original claim 6; Page 4, line 12-19; and Page 12, line 11 to Page 17, line 11
18	Original claim 7; Page 4, line 12-21; and Page 12, line 11 to Page 17, line 11
19	Original claim 2; Page 4, line 1-6; and Page 12, line 11 to Page 17, line 11
20	Original claim 3; Page 4, line 5-6; and Page 12, line 11 to Page 17, line 11
21	Original claim 9; Page 4, line 10-11; and Page 12, line 11 to Page 17, line 11
22	Page 1, line 3 to Page 2, line 11; and Page 12, line 11 to Page 17, line 11
23	Page 1, line 3 to Page 2, line 11; Page 4, lines 1-31, Page 12, line 11 to Page 17, line 11.
24	Original claim 4; Page 4, lies 22-31.
25	Original claim 5; Page 4, line 12-19; and Page 12, line 11 to Page 17, line 11
26	Original claim 7; Page 4, line 12-21; and Page 12, line 11 to Page 17, line 11
27	Original claim 2; Page 4, line 1-6; and Page 12, line 11 to Page 17, line 11
28	Original claim 3; Page 4, line 5-6; and Page 12, line 11 to Page 17, line 11
29	Original claim 9; Page 4, line 10-11; and Page 12, line 11 to Page 17, line 11
30	Page 1, line 3 to Page 2, line 11; and Page 12, line 11 to Page 17, line 11
31	Page 1, line 3 to Page 2, line 11; and Page 12, line 11 to Page 17, line 11
32	Page 1, line 3 to Page 2, line 11; Page 4, lines 1-31, Page 12, line 11 to Page 17, line 11.
33	Original claim 4; Page 4, lies 22-31.

34	Original claim 5; Page 4, line 12-19; and Page 12, line 11 to Page 17, line 11
35	Original claim 7; Page 4, line 12-21; and Page 12, line 11 to Page 17, line 11
36	Original claim 2; Page 4, line 1-6; and Page 12, line 11 to Page 17, line 11
37	Original claim 3; Page 4, line 5-6; and Page 12, line 11 to Page 17, line 11
38	Original claim 9; Page 4, line 10-11; and Page 12, line 11 to Page 17, line 11
39	Page 1, line 3 to Page 2, line 11; and Page 12, line 11 to Page 17, line 11
40	Page 1, line 3 to Page 2, line 11; and Page 12, line 11 to Page 17, line 11

In view of the above, Applicants respectfully submit that no new matter is introduced by the above amendments to the claims.

Applicants' undersigned representative has enclosed a complete set of the claims showing the changes desired. Enclosed is a full set of the amended claims in the condition desired after taking into account that above amendments as a courtesy to and a convenience for the Examiner. If for any reason there is a discrepancy between the amendments contained in this paper and the enclosed amended claims, Applicants request that the amendments of this paper be considered controlling.

The claims and amended claims are submitted as being clearly distinct and patentable over the art of record and therefore Applicants respectfully request their entry and allowance by the Examiner.

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Applicants hereby request for any extension of time that may be deemed necessary to further the prosecution of this application. Applicants' representative hereby authorizes the Commissioner to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 01-2508, referencing Order No. MIDR:700.

In order to facilitate the resolution of any issues or questions presented by this paper, Applicants respectfully request that the Examiner directly contact the undersigned by phone to further the discussion.

In order to promote the prosecution of this application, the Examiner is hereby authorized to contact the undersigned by electronic mail. Please address all e-mail to: whitec@howrey.com.

Respectfully submitted,

Carter J. White
Patent Agent
Reg. No. 41,374
Tel. 713 268 1372
Date: 24 May 01

WHAT IS CLAIMED IS:

2. (Amended) [A] The polymer [according to] of claim 1, [characterized in that] wherein the n-alkylamine is a di-n-alkylamine.

3. (Amended) [A] The polymer [according to] of claim 2, [characterized in that] wherein the di-n-alkylamine is di-n-dodecylamine.

4. (Amended) [A] The polymer [according to any one of the preceding claims] of claim 1, [characterized in that] wherein the hydrophilic polymer backbone is a homopolymer or copolymer based on monomers selected from acrylic acid, methacrylic acid, or any other alkyl derivatives substituted in the B position of the acrylic acid or esters of these acids obtained with mon- or polyalkyleneglycols, acrylamide, methacrylamide, vinylpyrrolidone, itaconic acid, maleic acid, 2-acrylamido-4-sulfonic acid (AMPS) or vinyl sulfonic acid.

5. (Amended) [A] The polymer [according to] of claim 4, [characterized in that] wherein the hydrophilic backbone is a sodium polyacrylate.

6. (Amended) [A] The polymer [according to] of claim 5, [characterized in that] wherein the mass average molecular mass of the sodium polyacrylate is in the range 50,000 to 2,000,000, prefreably in the range 100,000 to 1,500,000.

7. (Amended) [A] The polymer [according to] of claim 4, [characterized in that] wherein the hydrophillic backbone is a statistical copolymer of an acrylate and 2-acrylamido-2-methylpropanesulfonic acid (AMPS).

8. (Amended) [A] The polymer [according to] of claim 7, [characterized in that] wherein said statistical copolymer comprises in the range 30 mole % to 70 mole % of AMPS per mole of acrylate.

9. (Amended) [A] The polymer [according to any one of the preceding claims]of claim 1, [characterized in that] wherein the effective degree of modification of the polymer is in the range 0.10 to 0.50 moles of n-alkylamine per mole of hydrophilic polymer.

10. (Amended) The use of [a]the polymer [according to any one of claims 1 to 8] of claim 1 in stabilizing emulsions.

11. (Amended) The use of [a] the polymer [according to any one of claims 1 to 9] of claim 1, [to] in stabilizing petroleum or analogous drilling fluids.[, in particular drilling, fracturing, acidizing or completion fluids.]

12. (New) The use of claim 11 wherein the petroleum or analogous drilling fluids are selected from drilling fluids, fracturing fluids, acidizing fluids or completion fluids.

13. (New) An emulsion composition comprising

an oleaginous fluid,

a non-oleaginous fluid, and

a polymeric surfactant, wherein the polymeric surfactant is a polyelectrolyte which has a hydrophilic backbone that has been amidified by n-alkylamines in which the alkyl chains contain 6 to 22 carbons, and wherein the polymeric surfactant is in amounts sufficient to form an emulsion.

14. (New) The composition of claim 13, wherein the hydrophilic polymer backbone is a homopolymer or copolymer based on monomers selected from acrylic acid, methacrylic acid, or any other alkyl derivatives substituted in the B position of the acrylic acid or esters of these acids obtained with mon- or polyalkyleneglycols, acrylamide, methacrylamide, vinylpyrrolidone, itaconic acid, maleic acid, 2-acrylamido-4-sulfonic acid (AMPS) or vinyl sulfonic acid.

15. (New) The composition of claim 13, wherein the hydrophilic polymer backbone is a sodium polyacrylate.

16. (New) The composition of claim 15, wherein the mass average molecular mass of the sodium polyacrylate is in the range 50,000 to 2,000,000.

17. (New) The composition of claim 15, wherein the mass average molecular mass of the sodium polyacrylate is in the range 100,000 to 1,500,000.

18. (New) The composition of claim 13, wherein the hydrophillic backbone is a statistical copolymer of an acrylate and 2-acrylamido-2-methylpropanesulfonic acid.

19. (New) The composition of claim 13, wherein n-alkylamine is a di-n-alkylamine.

20. (New) The composition of claim 13, wherein the n-alkylamine is di-n-dodecylamine

21. (New) The composition of claim 13, wherein the effective degree of modification of the polymer is in the range 0.10 to 0.50 moles of n-alkylamine per mole of hydrophilic polymer.

22. (New) The composition of claim 13, wherein the emulsion is an invert emulsion.

23. (New) A method of formulating an invert emulsion drilling fluid, said method comprising:

mixing an oleaginous fluid, a non-oleaginous fluid, and a polymeric surfactant, wherein the polymeric surfactant is a polyelectrolyte having a hydrophilic backbone which has been amidified by n-alkylamines in which the alkyl chains contain 6 to 22 carbons, and wherein the polymeric surfactant is in amounts sufficient to form an emulsion.

24. (New) The method of claim 23, wherein the hydrophilic polymer backbone is a homopolymer or copolymer based on monomers selected from acrylic acid, methacrylic acid, or

any other alkyl derivatives substituted in the B position of the acrylic acid or esters of these acids obtained with mon- or polyalkyleneglycols, acrylamide, methacrylamide, vinylpyrrolidone, itaconic acid, maleic acid, 2-acrylamido-4-sulfonic acid (AMPS) or vinyl sulfonic acid.

25. (New) The method of claim 23, wherein the hydrophilic polymer backbone is a sodium polyacrylate.

26. (New) The method of claim 23, wherein the hydrophillic backbone is a statistical copolymer of an acrylate and 2-acrylamido-2-methylpropanesulfonic acid.

27. (New) The method of claim 23, wherein n-alkylamine is a di-n-alkylamine.

28. (New) The method of claim 23, wherein the n-alkylamine is di-n-dodecylamine

29. (New) The method of claim 23, wherein the effective degree of modification of the polymer is in the range 0.10 to 0.50 moles of n-alkylamine per mole of hydrophilic polymer.

30. (New) The method of claim 23, wherein the emulsion is an invert emulsion.

31. (New) The method of claim 23, wherein the emulsion is a regular emulsion.

32. (New) A method of drilling a subterranean well with a drilling fluid, said method comprising:

mixing an oleaginous fluid, a non-oleaginous fluid, and a polymeric surfactant, wherein the polymeric surfactant is a polyelectrolyte having a hydrophilic backbone which has been amidified by n-alkylamines in which the alkyl chains contain 6 to 22 carbons, and wherein the hydrophillic polymeric surfactant is in amounts sufficient to form an invert emulsion in which

the oleaginous fluid is the continuous phase and the non-oleaginous fluid is the discontinuous phase,

circulating said invert emulsion within said subterranean well and

drilling said subterranean well using said invert emulsion as the drilling fluid.

33. (New) The method of claim 32, wherein the hydrophilic polymer backbone is a homopolymer or copolymer based on monomers selected from acrylic acid, methacrylic acid, or any other alkyl derivatives substituted in the B position of the acrylic acid or esters of these acids obtained with mon- or polyalkyleneglycols, acrylamide, methacrylamide, vinylpyrrolidone, itaconic acid, maleic acid, 2-acrylamido-4-sulfonic acid (AMPS) or vinyl sulfonic acid.

34. (New) The method of claim 32, wherein the hydrophilic polymer backbone is a sodium polyacrylate.

35. (New) The method of claim 32, wherein the hydrophillic backbone is a statistical copolymer of an acrylate and 2-acrylamido-2-methylpropanesulfonic acid.

36. (New) The method of claim 32, wherein n-alkylamine is a di-n-alkylamine.

37. (New) The method of claim 32, wherein the n-alkylamine is di-n-dodecylamine

38. (New) The method of claim 32, wherein the effective degree of modification of the polymer is in the range 0.10 to 0.50 moles of n-alkylamine per mole of hydrophilic polymer.

39. (New) The method of claim 32, wherein the emulsion is an invert emulsion.

40. (New) The method of claim 32, wherein the emulsion is a regular emulsion.